

09/25/03

17414 U.S. PTO

UTILITY
PATENT APPLICATION
TRANSMITTALOur Docket No.: **169.12-0553**Date: **September 25, 2003**First Named Inventor: **Mark Covingt n**Title: **SUPPRESSION OF THERMALLY ACTIVATED
MAGNETIZATION FLUCTUATIONS IN MAGNETORESISTIVE
ELEMENTS VIA SPIN MOMENTUM TRANSFER**Express Mail No.: **EV 302258997 US**

22386 U.S. PTO

10/671160

09/25/03

APPLICATION ELEMENTS

ADDRESS TO: **Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

1. ☒ Fee Calculation Sheet
(Submit an original and a duplicate for fee processing)

2. ☐ Applicant claims small entity status

3. ☒ Specification Total Pages **[22]**

- Descriptive title of the invention
- Cross References to Related Applications
- Statement Regarding Fed. Sponsored R&D
- Reference to Microfiche Appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claims
- Abstract of the Disclosure

4. ☒ Drawings (35 U.S.C. 113) Total Sheets **[7]**

5. ☒ Oath or Declaration Total Pages **[2]**

- a. ☒ Newly Executed (original or copy)
b. ☐ Copy from a prior application (37 C.F.R. 1.63(d) - for continuation/divisional with Box 18 completed)

[Mark Box 5 below]

- I. ☐ **DELETION OF INVENTOR(S)**

Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. 1.63(d)(2) and 1.33(b)

6. ☒ Application Data Sheet. See 37 CFR 1.76.

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (*Appendix*)
8. Nucleotide and/or Amino Acid Sequence Submission (*If applicable, all necessary*)
- a. ☐ Computer Readable Copy (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies; or
 - ii. ☐ Paper
- c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☒ 37 C.F.R. 3.73(b) Submission
- ☒ Power of Attorney
11. ☐ English Translation Document (*if applicable*)
12. ☒ Information Disclosure Statement with copies of Citations as necessary
13. ☐ Preliminary Amendment Total Pages **[]**
14. ☒ Return Receipt Postcard (*Should be specifically itemized*)
15. ☐ Certified Copy of Priority document(s) (*If foreign priority is claimed*)
16. ☐ Nonpublication Request under 35 U.S.C. 122(b)(2)(B)(i). Application must attach form PTO/SB/35 or its equivalent
17. ☐ Other

18. If a **CONTINUING APPLICATION**, check appropriate box and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Division ☐ Continuation-in-part (CIP) of prior Application No.

Prior Application Information: Examiner Group Art Unit

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

ATTY NAME
AND REG. NO.**David R. Fairbairn
Reg. No. 26,047**SIGNATURE: 

ADDRESS

**Kinney & Lange, P.A.
THE KINNEY & LANGE BUILDING
312 South Third Street
Minneapolis, MN 55415-1002**

TELEPHONE

(612) 339-1863FAX: **(612) 339-6580**

| FEE TRANSMITTAL | | Complete if Known | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | Application No. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Filing Date | Herewith | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | First Named Inventor | Mark Covington | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Group Art Unit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Examiner Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Amount of Payment <u>\$1,126.00</u> | | Atty. Docket Number | 169.12-0553 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METHOD OF PAYMENT (Check One) | | FEE CALCULATION (Continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fee required under 37 C.F.R. 1.16 and 1.17 and credit any over payments to Deposit Account <u>No.11-0982</u> . Deposit Account Name: Kinney & Lange, P.A. A duplicate copy of this communication is enclosed | | 3. ADDITIONAL FEES <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee paid</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - Late filing fee or oath</td><td>*</td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td>*</td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td>*</td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For Filing a Request for Reexamination</td><td>*</td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td>*</td></tr> <tr><td>1252</td><td>410</td><td>2252</td><td>205</td><td>Extension for reply within second month</td><td>*</td></tr> <tr><td>1253</td><td>930</td><td>2253</td><td>465</td><td>Extension for reply within third month</td><td>*</td></tr> <tr><td>1254</td><td>1,450</td><td>2254</td><td>725</td><td>Extension for reply within fourth month</td><td>*</td></tr> <tr><td>1255</td><td>1,970</td><td>2255</td><td>985</td><td>Extension for reply within fifth month</td><td>*</td></tr> <tr><td>1402</td><td>320</td><td>2402</td><td>160</td><td>Filing a brief in support of an appeal</td><td>*</td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>140</td><td>Request for oral hearing</td><td>*</td></tr> <tr><td>1814</td><td>110</td><td>2814</td><td>55</td><td>Terminal Disclaimer Fee</td><td>*</td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td>*</td></tr> <tr><td>1453</td><td>1,300</td><td>2453</td><td>650</td><td>Petition to revive - unintentional</td><td>*</td></tr> <tr><td>1501</td><td>1,300</td><td>2501</td><td>650</td><td>Utility/Reissue issue fee</td><td>*</td></tr> <tr><td>1502</td><td>470</td><td>2502</td><td>235</td><td>Design issue fee</td><td>*</td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td>*</td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Petitions related to provisional applications</td><td>*</td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Statement</td><td>*</td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td><u>40</u></td></tr> <tr><td>1801</td><td>750</td><td>2801</td><td>375</td><td>Request for Continued Examination (RCE)</td><td>*</td></tr> <tr><td colspan="5">Other fee (specify) _____</td><td>*</td></tr> <tr> <td colspan="4"></td> <td style="text-align: right;">Subtotal (3) \$40.00</td> </tr> </tbody> </table> | | Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee paid | 1051 | 130 | 2051 | 65 | Surcharge - Late filing fee or oath | * | 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet | * | 1053 | 130 | 1053 | 130 | Non-English specification | * | 1812 | 2,520 | 1812 | 2,520 | For Filing a Request for Reexamination | * | 1251 | 110 | 2251 | 55 | Extension for reply within first month | * | 1252 | 410 | 2252 | 205 | Extension for reply within second month | * | 1253 | 930 | 2253 | 465 | Extension for reply within third month | * | 1254 | 1,450 | 2254 | 725 | Extension for reply within fourth month | * | 1255 | 1,970 | 2255 | 985 | Extension for reply within fifth month | * | 1402 | 320 | 2402 | 160 | Filing a brief in support of an appeal | * | 1403 | 280 | 2403 | 140 | Request for oral hearing | * | 1814 | 110 | 2814 | 55 | Terminal Disclaimer Fee | * | 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable | * | 1453 | 1,300 | 2453 | 650 | Petition to revive - unintentional | * | 1501 | 1,300 | 2501 | 650 | Utility/Reissue issue fee | * | 1502 | 470 | 2502 | 235 | Design issue fee | * | 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | * | 1807 | 50 | 1807 | 50 | Petitions related to provisional applications | * | 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Statement | * | 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | <u>40</u> | 1801 | 750 | 2801 | 375 | Request for Continued Examination (RCE) | * | Other fee (specify) _____ | | | | | * | | | | | Subtotal (3) \$40.00 |
| Large Entity Fee Code | Large Entity Fee (\$) | | | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1051 | 130 | 2051 | 65 | Surcharge - Late filing fee or oath | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1053 | 130 | 1053 | 130 | Non-English specification | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1812 | 2,520 | 1812 | 2,520 | For Filing a Request for Reexamination | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1251 | 110 | 2251 | 55 | Extension for reply within first month | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1252 | 410 | 2252 | 205 | Extension for reply within second month | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1253 | 930 | 2253 | 465 | Extension for reply within third month | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1254 | 1,450 | 2254 | 725 | Extension for reply within fourth month | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1255 | 1,970 | 2255 | 985 | Extension for reply within fifth month | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1402 | 320 | 2402 | 160 | Filing a brief in support of an appeal | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1403 | 280 | 2403 | 140 | Request for oral hearing | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1814 | 110 | 2814 | 55 | Terminal Disclaimer Fee | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1453 | 1,300 | 2453 | 650 | Petition to revive - unintentional | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1501 | 1,300 | 2501 | 650 | Utility/Reissue issue fee | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1502 | 470 | 2502 | 235 | Design issue fee | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1807 | 50 | 1807 | 50 | Petitions related to provisional applications | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Statement | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | <u>40</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1801 | 750 | 2801 | 375 | Request for Continued Examination (RCE) | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other fee (specify) _____ | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Subtotal (3) \$40.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. <input checked="" type="checkbox"/> Check Enclosed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FEE CALCULATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. BASIC FILING FEE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> </tr> </thead> <tbody> <tr><td>1001</td><td>750</td><td>2001</td><td>375</td><td><input checked="" type="checkbox"/> Utility Filing Fee</td></tr> <tr><td>1006</td><td>330</td><td>2006</td><td>165</td><td><input type="checkbox"/> Design Filing Fee</td></tr> <tr><td>1004</td><td>750</td><td>2004</td><td>375</td><td><input type="checkbox"/> Reissue Filing Fee</td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td><td><input type="checkbox"/> Prov. Filing Fee</td></tr> <tr> <td colspan="4"></td> <td style="text-align: right;">Subtotal (1) \$750.00</td> </tr> </tbody> </table> | | Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | 1001 | 750 | 2001 | 375 | <input checked="" type="checkbox"/> Utility Filing Fee | 1006 | 330 | 2006 | 165 | <input type="checkbox"/> Design Filing Fee | 1004 | 750 | 2004 | 375 | <input type="checkbox"/> Reissue Filing Fee | 1005 | 160 | 2005 | 80 | <input type="checkbox"/> Prov. Filing Fee | | | | | Subtotal (1) \$750.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1001 | 750 | 2001 | 375 | <input checked="" type="checkbox"/> Utility Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1006 | 330 | 2006 | 165 | <input type="checkbox"/> Design Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1004 | 750 | 2004 | 375 | <input type="checkbox"/> Reissue Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1005 | 160 | 2005 | 80 | <input type="checkbox"/> Prov. Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Subtotal (1) \$750.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. EXTRA CLAIM FEES <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Number Claims</th> <th>Prior**</th> <th>Extra</th> <th>Fee from Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td><u>34</u></td> <td>- <u>20</u></td> <td>= <u>14</u></td> <td>x <u>18</u></td> <td>= <u>252</u></td> </tr> <tr> <td>Indep.</td> <td><u>4</u></td> <td>- <u>3</u></td> <td>= <u>1</u></td> <td>x <u>84</u></td> <td>= <u>84</u></td> </tr> <tr> <td colspan="5">Multiple Dependent Claims</td> <td><u>*</u> = <u>*</u></td> </tr> </tbody> </table> <p>**Insert 3 and 20, or number previously paid if greater; Reissue see below</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td></tr> <tr><td>1201</td><td>84</td><td>2201</td><td>42</td><td>Independent claims in excess of 3</td></tr> <tr><td>1203</td><td>280</td><td>2203</td><td>140</td><td>Multiple Dependent Claim</td></tr> <tr><td>1204</td><td>84</td><td>2204</td><td>42</td><td>Reissue Independent Claims Over Original Patent</td></tr> <tr><td>1205</td><td>18</td><td>2205</td><td>9</td><td>Reissue claims in excess of 20 and over original patent</td></tr> <tr> <td colspan="4"></td> <td style="text-align: right;">Subtotal (2) \$336.00</td> </tr> </tbody> </table> | | | Number Claims | Prior** | Extra | Fee from Below | Fee Paid | Total | <u>34</u> | - <u>20</u> | = <u>14</u> | x <u>18</u> | = <u>252</u> | Indep. | <u>4</u> | - <u>3</u> | = <u>1</u> | x <u>84</u> | = <u>84</u> | Multiple Dependent Claims | | | | | <u>*</u> = <u>*</u> | Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Description | 1202 | 18 | 2202 | 9 | Claims in excess of 20 | 1201 | 84 | 2201 | 42 | Independent claims in excess of 3 | 1203 | 280 | 2203 | 140 | Multiple Dependent Claim | 1204 | 84 | 2204 | 42 | Reissue Independent Claims Over Original Patent | 1205 | 18 | 2205 | 9 | Reissue claims in excess of 20 and over original patent | | | | | Subtotal (2) \$336.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number Claims | Prior** | Extra | Fee from Below | Fee Paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | <u>34</u> | - <u>20</u> | = <u>14</u> | x <u>18</u> | = <u>252</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Indep. | <u>4</u> | - <u>3</u> | = <u>1</u> | x <u>84</u> | = <u>84</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Dependent Claims | | | | | <u>*</u> = <u>*</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1202 | 18 | 2202 | 9 | Claims in excess of 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1201 | 84 | 2201 | 42 | Independent claims in excess of 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1203 | 280 | 2203 | 140 | Multiple Dependent Claim | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1204 | 84 | 2204 | 42 | Reissue Independent Claims Over Original Patent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1205 | 18 | 2205 | 9 | Reissue claims in excess of 20 and over original patent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Subtotal (2) \$336.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Signature

David R. Fairbairn

Reg. No.

26,047

Date

9/25/03

Deposit Account No.

11-0982

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| First Named Inventor | : Mark Covington | Group Art Unit: Examiner: |
| Appln. No. | : | |
| Filed | : Herewith | |
| Title | : SUPPRESSION OF THERMALLY ACTIVATED MAGNETIZATION FLUCTUATIONS IN MAGNETORESISTIVE ELEMENTS VIA SPIN MOMENTUM TRANSFER | |
| Docket No. | : I69.12-0553 | |

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3. Utility Transmittal;
4. Application (22 pages);
5. Letter to Official Draftsman and Drawings (7 pages);
6. Declaration (2 pages);
7. Assignment Recordation Sheet and Assignment (2 pages);
8. Submission;
9. File Data Sheet;

10. Power of Attorney and Associate Power of Attorney; and
11. Information Disclosure Statement.

Respectfully submitted,

KINNEY & LANGE, P.A.

Date: 9/25/03

By 

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